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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,833	05/01/2006	Herbert Peusens	PD030102	6220
24498 7590 09/20/2007 JOSEPH J. LAKS, VICE PRESIDENT THOMSON LICENSING LLC PATENT OPERATIONS PO BOX 5312 PRINCETON, NJ 08543-5312			EXAMINER HANNON, CHRISTIAN A	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 09/20/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,833

Applicant(s)

PEUSENS ET AL.

Examiner

Christian A. Hannon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/1/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 5/1/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the examiner is considering the information disclosure statement.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 & 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi et al (US 6,807,406), hereinafter Razavi.

Regarding claims 1 & 6, Razavi teaches an RF circuit and method for including a controllable mixer having at least one transistor to which an oscillator signal and an input signal are supplied with the input signal and with an output signal being produced as an output of the mixer (Column 5, Lines 14-19; Razavi) wherein a controller is provided which applies a control signal to the mixer as a function of the signal quality of the output signal (Column 5, Lines 38-41; Razavi) wherein the operating point of the at least one transistor can be set by means of the control signal (Column 7, Lines 20-39;

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Razavi) in which case the intermodulation immunity and/or the noise in the output signal can be varied as a function of the operating point of the at least one transistor (Column 7, Lines 20-39; Razavi) wherein a controllable portion of the overall gain of the RF circuit is determined by the operating point of the at least one transistor of the mixer (Column 4, Lines 48-51; Razavi). However Razavi fails to teach that the RF signal comprises a useful signal and further signals. Yet it is well known in the art that received signals have some interference and Razavi alludes to this (Column 1, Lines 42-45; Razavi). Therefore it would be obvious that a received signal at Razavi's receiver would include useful signals, those demodulated, and further signals, and noise signals, when enacted in a real life situation. Furthermore as claim 6, recites an analogous method claim to the apparatus claim 1, it is similarly rejected.

Regarding claim 2, Razavi teaches claim 1, wherein a demodulator, which is connected downstream from the mixer, and an evaluation circuit are provided for assessment of the signal quality of the output signal (Column 2, Lines 25-35; Razavi), Razavi teaches the DSP demodulates and evaluates the demodulated data in order to issue the mixer command signal.

Regarding claims 3 & 7, Razavi teaches claims 2 & 6, respectively, wherein the evaluation circuit assesses the error rate of a digitally coded signal (column 2, Lines 25-35; Razavi).

5. Claims 4-5 & 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Razavi in view of Tsukuda (US 6,282,414).

Regarding claims 4 & 8, Razavi teaches claims 1 & 6, respectively, however Razavi fails to teach wherein a memory is provided for recording initial values, on the basis of which the signal quality can be assessed and optimized. However Tsukuda teaches a controllable mixer wherein a memory is provided for recording initial values, on the basis of which the signal quality can be assessed and optimized (Column 8, Lines 22-25 & 41-45; Tsukuda), Tsukuda teaches that frequency data can be stored in order to tune the mixer to an initial value based upon whereby it is known that by tuning to the stored memory data signal quality is optimized. Therefore it would be obvious to one of ordinary skill in the art to combine Tsukuda's memory with the teachings of Razavi in order to expedite known information in order to optimize the gain of the mixer.

Regarding claims 5 & 9, Razavi and Tsukuda teaches claims 4 & 8, furthermore Tsukuda teaches wherein the initial values comprise information about the modulation method, that is the frequency at which to down convert (Column 8, Lines 41-45; Tsukuda).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian A. Hannon whose telephone number is (571) 272-7385. The examiner can normally be reached on Mon. - Fri. 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



C. A. Hannon
September 11, 2007



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